

Patent [19]

[11] Patent Number: 08103631

[45] Date of Patent: Apr. 23, 1996

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H**[54] PHOTOCATALYTIC FILTER AND ITS PRODUCTION**

[21] Appl. No.: 05341564 JP05341564 JP

[22] Filed: Dec. 09, 1993

[51] Int. Cl.⁶ B01D05386; B01D05386; A61L00918; B01D03920; B01J02106; B01J03502; C01G023053; C02F00130**[57] ABSTRACT**

PURPOSE: To provide a photocatalytic filter and its production method capable of continuously and efficiently executing the removal of malodor or harmful material in air, waste water treatment or water purifying treatment and having excellent properties in the aspects of economics, safety, water resistance, heat resistance, light resistance, stability or the like.

CONSTITUTION: The photocatalytic filter is produced by coating a glass filter made by fusing a spherical heat resistant glass with a titania sol prepared by a titanium alkoxide and an alcohol amine or one made by adding polyethylene glycol or polyethylene oxide thereinto and firing under heating to raise the temp. from room temp. to the final temp. of 600- 700°C and the surface is coated with an anatase titanium oxide film having narrow pores uniform in pore diameter. And the filter adsorbs environmental pollution materials and rapidly, effectively and continuously decompose and remove them with the irradiation of light.
